

REMARKS

Claims 1, 5, 8, 9, 14, 16, 25-27 and 30-31 are pending.

Claim 1 has been amended to clarify the invention.

New claim 30 recites that the adhesive resin has an adhesive strength of 5.8 N/15 mm up to an adhesive strength rendering a film unpeelable when said film is formed of the adhesive resin in direct contact with the inert protective or passive layer formed by acid treatment of an aluminum layer. This range finds support in Table 1 on page 26 of the specification. Such an amendment has been sanctioned by the courts in such cases as *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). In *Wertheim*, at issue was whether the claim limitation of "between 35% to 60%" by weight of coffee solids constituted "new matter." The specification recited exemplified processes using 36% and 50% solids.

The court concluded that

[i]n the context of this invention, in light of the description of the invention as employing solids contents within the range of 25-60% along with specific embodiments of 36% and 50%, we are of the opinion that, as a factual matter, persons skilled in the art would consider processes employing a 35- 60% solids content range to be part of appellants' invention...

"The written description requirement does not require the applicant 'to describe exactly the subject matter claimed, [instead] the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed'" (citation omitted). *Union Oil of Cal. v. Atlantic Richfield Co.*, 208 F.3d 989, 997, 54 USPQ2d 1227, 1232 (Fed. Cir. 2000).

New claim 31 finds support in the paragraph bridging pages 15-16 of the specification.

Accordingly, no new matter has been added to the disclosure by way of the above-

amendment.

[II] Prior Art Based Issues

The Examiner has essentially repeated two of the three prior art based rejections which were previously made in the December 21, 2005 Office Action. The prior art based rejections that are still pending are as follows:

- A. Claims 1 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nonaka et al. 2002/0138958.
- B. Claims 1, 5, 8-9, 14, 16 and 25-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Japanese document JP 11-086808 (herein called “JP’808”) in view of Nonaka et al. 2002/0138958.

Applicants respectfully traverse both rejections.

[IA] Summary of Comments:

During prosecution, the Examiner has maintained that the difference between the laminate of the present invention and the laminate of Nonaka et al. is merely a rearrangement of layers. The Examiner cites MPEP 2144.04 for the proposition that rearrangement of layers is *prima facie* obvious.

In response, Applicants respectfully submit that the rearrangement of the layers of the laminate of Nonaka et al. to be in the order as recited in the present claims would render the laminate of Nonaka et al. inoperable. According to the MPEP 2143.01, “[i]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no ... motivation to make the proposed modification.”

Furthermore, JP’808 does not cure this deficiency of Nonaka et al.

Applicants now provide a detailed analysis in support for this position.

[IB] Nonaka et al.:

Applicants now discuss the technical aspects of the prior art and of the present invention.

The laminate of Nonaka et al. is used in a secondary battery as is the laminate of the present invention. However, the laminate of Nonaka et al. as discussed by the Examiner as being relevant to the laminate of the present invention is clearly different from that of the present invention not only in the function but also in its application field.

In the Nonaka et al. laminate, a porous polypropylene separator film is used for the purpose of functioning as an electrolyte-permeable partition membrane in an electric battery, which does not correspond to the adhesive resin layer of the present invention incorporated for the purpose of realizing high resistance to interlayer separation (i.e., high resistance to electrolyte penetration therethrough).

The inert passive film of the present invention is formed over the metal layer in direct and is in intimate contact therewith due to the mechanism of its formation by a metal surface oxidizing reaction or by a chemical reaction of the metal surface with an acid provides for facilitation of intimate bonding between the adhesive resin layer and the metal layer to effect higher resistance to an electrolyte which is held in contact with the laminate. Nonaka et al. do not teach or suggest how to facilitate intimate bonding between the metal layer and the adhesive resin layer by intermediation through an inert protective layer but rather Nonaka et al. teach the destruction of such an inert passivation layer by piercing the inert passivation layer with solid carbon particles to ensure electric conduction.

In conclusion, there are three essential distinctions between the laminate of Nonaka et al. and that of the present invention which are as follows:

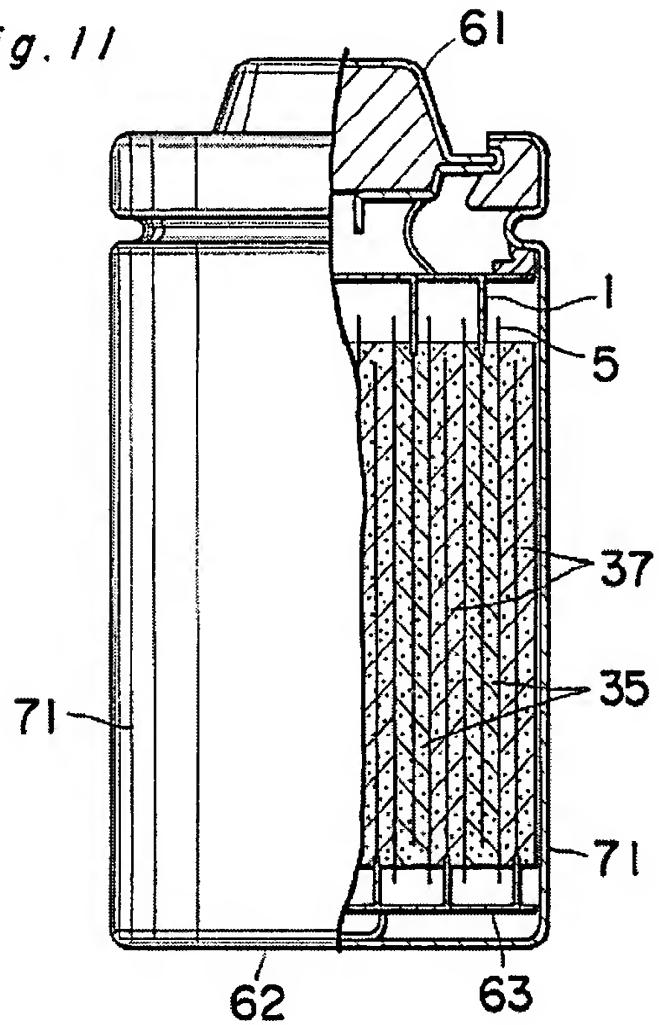
- (1) The laminate of Nonaka et al. is used for supporting an electrode reaction of

electric battery in which a separator film made of, for example, porous film, non-woven cloth or other electrolyte-permeable porous film, is used (see [0066] in the USP publication), whereas the laminate of the present invention is used for encasing or storing electrolyte and electrodes of electric battery in which an adhesive resin layer bound in direct contact with an inert passivation layer on a metal (reinforcing) layer is used for the purpose of preventing interlayer separation caused by chemical reaction: of the metal layer with the electrolyte penetrated through the resin layer.

- (2) The metal layer in the Nonaka et al. laminate cited by the Examiner functions as a part of a battery electrode participating in an electrode reaction, in which a passivation oxide film formation on the metal layer **should be avoided** by, for example, carbon hard particles (see [0061] in the USP publication), whereas the metal layer in the laminate of the present invention functions as a supporting or reinforcing layer of the laminate and does not participate in any battery electrode reaction.
- (3) The laminate of Nonaka et al. as recognized by the Examiner should have a structure in which electrolyte layers are interposed between laminate-constituent layers for providing for the battery other in direct contact.

The Examiner refers to Fig. 11 of Nonaka et al. which has the following structure:

Fig. 11



The order of layers in the inventive laminate and the laminate of Nonaka et al. as cited by the Examiner is shown in the following table:

Order of Layers of the laminate of Nonaka et al.	Order of Layers of the Inventive Laminate
Electrode 37	Electrode
Separator 5 (an adhesive layer?)	Adhesive resin layer
Electrode 35	Surface treated layer
Aluminum foil 1	Metal layer

The Examiner has taken the position in the third paragraph of page 3 of the outstanding Office Action that a natural oxide film would be found on the aluminum foil layer 1 inherently and this natural oxide film is equivalent to the inventive surface treated

layer.

Assuming *arguendo* that the Examiner is correct regarding the natural oxide layer on the aluminum foil layer, the structure of Fig 11 of Nonaka et al. would compare to the present invention as follows:

Order of Layers of the Hypothetical laminate of Nonaka et al.	Order of Layers of the Inventive Laminate
Electrode 37	Electrode
Separator 5 (an adhesive layer?)	Adhesive resin layer
Electrode 35	
Hypothetical natural oxide layer	Surface treated layer
Aluminum foil 1	Metal layer

As the Examiner will note from the above-table, the inventive laminate differs from the hypothetical laminate of Nonaka et al. in that the inventive laminate does not have an electrode 35 between the Separator 5 and the hypothetical natural oxide layer. It is Applicants' position that removing Electrode 35 from the laminate of Nonaka et al. would render the embodiment of Fig. 11 inoperable for its intended purpose.

As mentioned above, any rearrangement of the constituent layers of Nonaka et al. laminate as suggested by the Examiner will result in the destruction of the function of the laminate as an electric battery thereby rendering the laminate inoperable for its intended purpose. However, according to the MPEP 2143.01, “[i]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no ... motivation to make the proposed modification.” Accordingly, the inventive laminate could not be rendered obvious by Nonaka et al. as alleged by the Examiner.

[IC] Nonaka et al. do not teach a polyolefin modified by carboxyl group or a derivative thereof:

The Examiner relies on element 5 of Fig. 11 of Nonaka et al. for being equivalent to the inventive adhesive layer. However, the Examiner has not provided any guidance as to where Nonaka et al. teach that element 5 can contain a polyolefin modified by carboxyl group or a derivative thereof, as presently claimed. Nonaka et al. teach in 0066 that separator 5 "may be thin insulating material capable of penetrating an electrolyte therethrough such as polypropylene porous film, woven or unwoven glass cloth, paper made of manila paper and rayon." ***The Examiner is respectfully requested to clarify*** for the record how the separator 5 meets the inventive adhesive layer which comprises a polyolefin modified by carboxyl group or a derivative thereof. As the MPEP directs, all the claim limitations must be taught or suggested by the prior art to establish a *prima facie* case of obviousness. See MPEP § 2143.03.

[ID] JP '808:

The Examiner believes that JP '808 teaches the following construction of a laminate:

Polymer layer 10
Adhesive layer
Metal deposition layer (the Examiner equates to the instant metal oxide layer)
Aluminum
Adhesive layer
Polymer layer 11

The Examiner relies on the abstract wherein it is disclosed that the metal layer between the plastic layers is "such as an aluminum foil and a metal deposition layer." The Examiner believes that this disclosure means that an aluminum layer and a separate metal deposition layer are between the two plastic layers.

Applicants respectfully disagree. As evidence of the disclosure of JP'808, Applicants enclosed with the May 17, 2006 Amendment an English translation of the relevant portions of JP'808. The Examiner will note from paragraph [0010] that JP'808 teaches that the metal layer is

either an aluminum foil or metal deposition layer. Accordingly, JP'808 fails to teach or fairly suggest the use of both an aluminum foil and metal deposition layer at the same time as is required by the claims. Accordingly, the presently claimed invention is patentably distinct from JP'808.

In view of foregoing, Applicants respectfully submit that the presently claimed invention is patentably distinct from Nonaka et al. and JP'808. As such, withdrawal of the rejections are respectfully requested.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

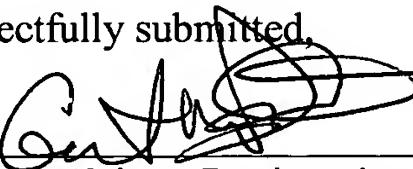
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Garth M. Dahlen, Ph.D., Esq. Reg. No. 43,575 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: September 5, 2006

Respectfully submitted,

By


Marc S. Weiner, Registration No.: 32,181
Garth M. Dahlen, Ph.D., Registration No. 43,575
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant